Amendments to the Claims:

Please cancel Claims 13-24 and amend Claims 1, 2, 5-8, 11, and 12 as follows:

1. (currently amended) A communication system adapted to interconnect a bus controller with an associated data channel via a common digital bus, the communication system comprising:

a bus controller connected to the common digital bus for communicating in an asynchronous mode with a data channel across the common digital bus; and

a network device interface connected between the common digital bus and an associated data channel, wherein said network device interface transmits commands to and receives data from the associated data channel based on commands from said bus controller,

wherein said bus controller transmits messages containing a plurality of bits having a value defined by a transition between first and second states of the bits,

wherein said network device interface evaluates the messages transmitted by said bus controller in order to determine a timing of the data sequence of the message and uses the determined timing to communicate with said bus controller,

wherein said bus controller communicates with the network device interface using a first predetermined bit rate,

wherein said bus controller transmits a first message from the bus controller to the at least one data channel at a predetermined second bit rate, wherein the predetermined second bit rate is selected from a predetermined number of different bit rates that may be used to communicate on the common digital bus,

wherein said network device interface:

receives the first message and analyzes the first message at each of the predetermined number of different bit rates;

determines from the predetermined number of different bit rates that the first message is being transmitted at the second predetermined bit rate, where the determination is made independent of a synchronous clock signal from the bus controller; and

transmits a second message from the at least one data channel to the bus controller in response to the first message at the second predetermined bit rate.

2. (currently amended) A communication system according to Claim 1, wherein said network device interface uses the second predetermined bit rate ~~determined timing~~ to communicate with the data channel connected to said network device interface.

3. (original) A communication system according to Claim 1, wherein said bus controller transmits messages having Manchester encoded bits.

4. (original) A communication system according to Claim 1, wherein the messages transmitted by said bus controller contain a plurality of bits having a value defined by a transition between first and second states that occurs at the center of each bit.

5. (currently amended) A communication system according to Claim 1 wherein said network device interface uses the second predetermined bit rate ~~timing~~ determined from evaluation of messages transmitted by said bus controller independent of a local oscillator.

6. (currently amended) A communication system according to Claim 1 further comprising a local oscillator connected to said network device interface for providing a data rate to said network device interface for use in receiving messages from said bus controller, and wherein said network device interface uses the second predetermined bit rate ~~timing~~ determined from evaluation of messages transmitted by said bus controller to compensate for deviations in timing provided by said local oscillator.

7. (currently amended) A method for communicating between a bus controller and an associated data channel via a common digital bus comprising the steps of:

providing a network device interface connected between the common digital bus and the associated data channel, wherein said network device interface transmits commands to and receives data from the associated data channel based on commands from said bus controller;

transmitting messages to the network device interface containing a plurality of bits having a value defined by a transition between first and second states in the bits using a first predetermined bit rate selected from a predetermined number of different bit rates;

receiving the message at the network device interface;

analyzing the message at each of the predetermined number of different bit rates;

determining a timing of the data sequence of the message transmitted by said bus controller, wherein the timing represents the first predetermined bit rate; and

using the first predetermined bit rate ~~determined timing~~ to communicate with said bus controller.

8. (currently amended) A method according to Claim 7, wherein said using step further uses the first predetermined bit rate ~~determined timing~~ to communicate between the network device interface and the data channel.

9. (original) A method according to Claim 7, wherein said transmitting step transmits messages having Manchester encoded bits.

10. (original) A method according to Claim 7, wherein said transmitting step transmits messages transmitted containing a plurality of bits having a value defined by a transition between first and second states that occurs at the center of each bit.

11. (currently amended) A method according to Claim 7 wherein said using step uses the first predetermined bit rate determined ~~timing determine~~ from evaluation of messages transmitted by the bus controller independent of a timing signal from a local oscillator.

12. (currently amended) A method according to Claim 7 wherein the network device interface has a local oscillator for providing a data rate to said network device interface for use in receiving messages from the bus controller, and wherein said using step uses the first predetermined bit rate determined ~~timing~~ from evaluation of messages transmitted by the bus controller to compensate for deviations in timing provided by the local oscillator.

13-24. (canceled).